

Appl. No. 10/627,615
Amdt. Dated 07, 06, 2006
Reply to Office Action of 04, 24, 2006

Amendments to the Specification:

Please replace paragraph [0043] with the following amended paragraph:

[0043] According to an embodiment of the present invention, the sensor, for example 100a, 101a of FIGURE 1, may be commercially available discrete sensors or modules selected for their detection properties. For example, the discrete sensors may be microwave modules such as microwave doppler modules or transceivers, stereo doppler modules, FM doppler radar modules, or VCO modules. The discrete sensors may also be ultrasonic transducers such as pulsed or continuous transducers that provide range or doppler signals, or the discrete sensors may be passive infrared (IR) sensors, or active (reflective) IR sensors. In addition, the various types of discrete sensors 100a, 101a, ..., may be combined within any sensor node 10a, 10b, ...10n. The discrete sensors are selected for their phenomenology and specific detection features, such as detection field size, shape, and parameter. For the purposes of this document, discrete sensors are classified as either being volumetric sensors or non-volumetric sensors. Volumetric sensors are defined as each having an associated volumetric detection field. This is in contrast to non-volumetric sensors which are defined as having linear or planar detection fields, ~~such as touch or contact sensors~~. The combination of various types of discrete sensors provides each sensor node with different detection features. For example, a fixed frequency doppler microwave which provides intruder magnitude and velocity response may be combined with a pulsed ultrasonic transducer which can provide intruder range. Such a doppler microwave, by itself, is not capable

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of differentiating between a large intruder far away from the perimeter under surveillance and a small intruder close to the perimeter, such as a bird landing. Therefore, the addition of a second discrete sensor with a different phenomenology, such as a pulsed ultrasonic sensor, gives the intruder range information as well as assisting in intruder classification. The combination of discrete sensor phenomenologies to assess target features, and processing the signatures from each node of the sensor array, facilitates the differentiation between nuisance sources and the environment.